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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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REGION 8
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DIST.	LTR	ENC
BERARDINI, J.H.	X	
BOGNAR, E.S.	X	
BROOKS, L.	X	
BUTLER, L.	X	
CARPENTER, M.	X	
CROCKETT, G. A.		
DECK, C. A.	X	
DEGENHART, K. R.		
DIETER, T. J.		
FERRERA, D. W.	X	
GIACOMINI, J. J.		
LINDSAY, D. C.	X	
LONG, J. W.		
LYLE, J. L.		
MARTINEZ, L. A.	X	
NAGEL, R. E.	X	
NESTA, S.		
NORTH, K.	X	
RODGERS, A. D.		
SHELTON, O. C.	X	
SPEARS, M. S.	X	
PIZZUTO, V.M.		
TOBIN, M.	X	
TUOR, N. R.	X	
WIEMELT, K.		
WILLIAMS, J. L.		
ZAHR, C.	X	

REF: EPR-F

June 23, 2004

Mr. Joe Legare
Assistant Administrator for Environment and Infrastructure
U.S. Department of Energy-RFFO
10808 Highway 93, Unit A
Golden CO 80401-8200

RE: Interim Measure/Interim Remedial Action for the Present Landfill

Dear Mr. Legare:

The Environmental Protection Agency has reviewed the Interim Measure/Interim Remedial Action (IM/IRA) Report dated May 2004. We realize that you desire approval of this document expeditiously. However, we are withholding approval pending changes as described in the enclosures. Specifically, the ARAR's list is not complete and must be updated to add the list of ARAR's which are attached, the document is not consistent with respect to issues with the landfill pond and surface water monitoring, and the document did not change as a result of diverting the groundwater interceptor pipe into the tank treatment system. Please see the enclosures for additional details and specific comments on this document.

Concerning ARAR's, while we have not identified the Endangered Species Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act as ARARS for this action, we note that they are potentially applicable to any and all activities at Rocky Flats which could affect threatened or endangered species or their habitat. At the Rocky Mountain Arsenal NPL site, it was determined that these Acts are not ARARs, but independently apply to remediation activities. We believe that these Acts should be dealt with in the same way at Rocky Flats.

Also please find attached our comments on the slope stability evaluation which pertain to the seismic issues relative the accelerated design document, which have already been provided to you electronically. If you have any questions concerning these comments, please contact Jean MacKenzie (EPA) at 303-312-6258.

Sincerely,

C. Mark Aguilar
Rocky Flats Project Manager
Environmental Protection Agency

Enclosures (3)

COR. CONTROL	X
ADMIN. RECORD	X
PATS/130	

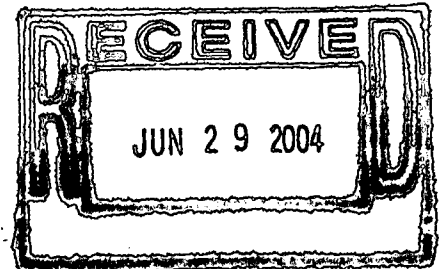
Reviewed for Addressee
Corres. Control RFP

6/28/04 *ML*
Date By

Ref. Ltr. #

DOE ORDER #

5400.1



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ADMIN RECORD

BZ-A-000714

cc: Norma **Castaneda**, DOE .

Dan Miller, AGO

Steve **Gunderson**, CDPHE

Dave **Shelton**, K-H

Lane **Butler**, K-H

Administrative Record, T130G



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Enclosure 1
EPA COMMENTS ON FINAL INTERIM MEASURE/INTERIM REMEDIAL ACTION
FOR IHSS 114 AND RCRA CLOSURE OF RFETS PRESENT LANDFILL
ROCKY FLATS, GOLDEN, COLORADO

GENERAL COMMENT

The revisions to the document and the transmittal letter indicate that the discharge pipe from the groundwater intercept system is a potential cause of contamination down-gradient of the East Landfill Pond, and that rerouting the flow to the seep treatment system will mitigate the problem. Because no technical basis was provided to support this concept, it is unclear whether this proposal will mitigate the impact of the current direct discharge to areas down-gradient of the East Landfill Pond or create further issues by discharging effluent which may have high concentrations of metals and inorganic constituents to a system that is designed to treat effluent with low concentrations of volatile constituents. If this system bypasses the untreated inorganic constituents, the East Landfill Pond could become contaminated above action levels and create other problems with surface water discharge requirements. Because there is an abundance of conjecture about the East Landfill Pond and the down-gradient contamination, the document should clearly state that these areas are excluded from this IM/IRA, but will be addressed subsequently.

SPECIFIC COMMENTS

A. The Present Landfill and Present Landfill Seep

1. The third paragraph, Page 1 clearly states that this IM/IRA addresses only the accelerated actions required for the Present Landfill and the Present Landfill Seep. Yet several sections in the document make conclusions and recommendations about issues that are still outstanding concerns, and are not the Present Landfill and the Present Landfill Seep. For example, Executive Summary, Page ES-1, fourth paragraph states "The East Landfill Pond will remain and no changes will be made to the pond's physical configuration." Because there are many outstanding issues with the East Landfill Pond, such a statement is premature, at best, and may in fact be totally incorrect as issues surrounding the East Landfill Pond are addressed as separate substantive items. Statements in the document that may suggest to the reader that the East Landfill pond has no issues should be edited.
2. The IHSS boundary depicted in Figure 1 is not the IHSS boundary for the IHSS 114 depicted in previous documents such as the Phase 1 IM/IRA Decision Document for Operable Unit 7 Present Landfill. The boundary depicted in Figure 1 indicates that the East Landfill Pond and the adjacent areas to the north and south of this pond are included in IHSS 114. The figures should be consistent or an explanation should provide a basis for the change.
3. Surface water monitoring of the NPDES outfall must continue in accordance with NPDES regulations. The last sentence on page 61, Section 6-4-2-3, must be deleted and replaced with the following as stated on page A-3, last sentence: "During future CERCLA periodic reviews, the RFCA parties will evaluate whether

continued monitoring of the treatment system effluent is required beyond the yearly sampling required under the existing law." Also necessary in this document is the list of constituents to be analyzed.

B. Contamination Down-gradient of the East Landfill Pond

There are several inconsistencies in the document about the contamination down-gradient of the East Landfill Pond. As agreed to previously, the document should state that these issues are not part of this IM/IRA but will be addressed subsequently.

For example;

Page 19, Third Paragraph, states "From the East Landfill Pond, groundwater flows beneath (within the weathered bedrock) and through the dam at a slow rate because of low associated permeabilities." (Figure 3) illustrates this concept.

Page 28, Section 2.6.3, Second Paragraph, states "The increase in metalsin down gradient groundwater, has been attributed to a secondary contaminant source.....or other natural processes...These conjectures have been offered because..."

Page 31, Section 2.6.3.6, states "...there is some potential that seepage or underflow of the dam is possible, which may contribute these elevated concentrations observed in down gradient weathered bedrock well B206989."

Page 32, Second Paragraph states "...the continued presence of metals and anions (since 1986) in down-gradient groundwater..."

ES-1, Fifth Paragraph, "Groundwater monitoring at the Present Landfill over the last 18 years has shown that the landfill is not impacting downgradient water quality."

It is evident that areas immediately down-gradient of the East Landfill Pond dam have the potential to convey significant quantities of groundwater away from the East Landfill Pond. (Page 16, Third Paragraph, states "A vertical hydraulic gradient for well pair 4087/B206989, calculated in July 002, indicates a downward component of flow at 0.686 ft./ft."). In addition, there is only conjecture and confusion about the source, extent, and nature of the contamination down-gradient of the East Landfill pond, and the basis for the significant differences in water quality, particularly the inorganic constituents, up-gradient of the landfill and down-gradient of the East Landfill pond. Based on this lack of a technically supported explanation (not conjecture) of the contamination down-gradient of East Landfill Pond, it is inappropriate to give the reader the impression that this is a closed issue.

C. New Proposal to Route the Discharge from the Groundwater Intercept System (GWIS) to the Seep Treatment System

The quantity, quality, and sources of potential contaminating constituents in this new waste stream are not known and have not been discussed in the document. Because the treatment system is only "effective for the removal of low concentrations of volatile

constituents" (Table 4, Page 43), and there is a potential for inorganic constituents to be conveyed by the GWIS, there is an uncertainty about the effectiveness of the system to treat the contaminants in the combined flow. If the system does not adequately treat inorganic constituents, these constituents will be discharged to the East Landfill Pond, which as indicated in the document, is probably leaking, and will further contaminate areas down-gradient of the East Landfill pond.

Additional information should be presented to provide some measure of assurance that the proposed approach will treat the combined waste stream and will not create greater additional problems in and down-gradient of the East Landfill Pond. The list of constituents must also be expanded to include potential contaminants from this source, as follows: A full suite of the Appendix VIII constituents must be monitored quarterly during periods of flow for one year to determine potential constituents of concern. Following this analysis, the treatment system will be evaluated to ensure adequate treatment of these additional constituents and any additional contaminants exceeding RFCAs Tier I Action Levels will be added to the list of analytes to be monitored.

D. ARAR'S

The ARARs list is not complete pertaining to several of the chemical-, location-, and action-specific ARARs. Please include the ARARs that are listed in Enclosure 2. It is requested that the ARARs be presented in the standard categories (i.e., chemical, location, action) in order to facilitate review and future use of the ARARs during remedy implementation.

E. Present Landfill Cover Vegetation

The proposed depth of soil over the biota barrier grade cobble layer is 2 feet. Because available field information strongly suggests that even shortgrass communities will not be sustainable in this depth of soil above the biota barrier, and because no quantitative and site specific data has been presented thus far to suggest otherwise, the document should propose a soil depth of a minimum of 2 feet. The final design document must provide detailed analyses, and field and laboratory data to support the proposed soil thickness.

F. Appendix G, Wetland Mitigation Plan

The success criteria discussed on page 6 proposes 30% non-native (reduced from 40% cover proposed in the previous submittal). Additional discussion with is necessary in order for EPA to understand the rationale for proposing non-native species to repopulate the mitigation site. If the proposal is to re-establish the wetlands, then the plan should be to plant or plug native plant species. Please provide detailed explanation as to why non-native species are proposed for the wetland mitigation. Otherwise, no non-natives are allowed for the re-establishment.

The In-Situ Mitigation Site Plan (page 9) is unclear. The wetland re-establishment appears to be limited to seeding for re-vegetation purposes. Container plantings or nursery stock are always an option for wetland mitigation and are often more successful than seeding. The mitigation plan should not be limited to seeding, but additional methods should be proposed to ensure success.

ENCLOSURE 2
EPA TECHNICAL REVIEW COMMENTS ON THE FINAL IM/IRA FOR IHSS 114
AND CLOSURE OF THE RFETS PRESENT LANDFILL

Applicable or Relevant and Appropriate Requirements TO BE ADDED to ARAR
IM/IRA Table

Federal Laws				
Location-Specific ARARs				
Law/Regulation	Citation	Description	ARAR Designation	Comments
Federal Laws				
Fish and Wildlife Coordination Act	16 USC & 661, et seq.	Requires consultation by federal departments or agency proposing or authorizing any modification of any stream or other water body and adequate provision for protection of fish and wildlife resources.	Applicable	Applicable because possible remedial action may affect landfill pond.
Protection of Wetlands	Executive Order 11990, 40 CFR Part 6, Appendix A, 404 as Appendix, 10CFR 1022.11, 10CFR 1022.12, 10CFR 1022.13	Federal agencies must prevent, to the extent possible, the adverse impacts of destroying or modifying wetlands and must prevent direct or indirect support of new construction in wetlands if there is a practicable	Applicable	Riparian areas around the Present Landfill have been identified as wetland areas.

6

		alternative.		
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Location-Specific ARARs, continued				
Law/Regulation	Citation	Description	ARAR Designation	Comments
Federal Laws				
National Wildlife Refuge System Administration Act (Implementation Regulations)	16 USC 668dd	Establishes Rocky Flats as a national wildlife refuge, cleanup and closure of the entire site to be retained and managed to preserve the value of the site as open space and wildlife habitat, and ensures that Rocky Flats is thoroughly and completely cleaned up.	Independently Apply To Remedial Activities	Applicable because actions should be designed to address the mission and implementing regulations in the National Wildlife Refuge System Administration Act.
Rocky Flats National Wildlife Refuge Act of 2001	PL 107-107			

Location-Specific ARARs, continued				
Law/Regulation	Citation	Description	ARAR Designation	Comments
State Laws				
Colorado Noxious Weed Act	Title 35 Agriculture, Article 5.5	Establishes requirements to ensure that all lands in the state are managed for undesirable plants, unlawful to introduce, cultivate... or unknowingly allow to grow.	Applicable	Alternatives should be developed to minimize conditions that promote noxious weed development and establish noxious weed management plans.

Federal Laws				
Clean Water Act National Pollution Control Act	40 CFR Part 122.44(k)	Requires that best management practices be maintained by the operator of a system that discharges pollutants directly to environment and requires that point source discharges be monitored to ensure compliance with effluent discharge limits.	Applicable	Applicable through the NPDES Federal Facility Compliance Agreement (FFCA-CWA 90-1)

Chemical-Specific ARARs				
Law/Regulation	Citation	Description	ARAR Designation	Comments
Federal Laws				
Clean Air Act of 1963, 40 USC 7401-7462 - National Emissions Standards for Air Pollutants	40 CFR 61	Establishes emissions standards for those hazardous air pollutants for which no ambient air quality standards exists, but which cause or contribute to air pollution that may result in serious health effects.	Potentially Applicable	Applicable to alternatives that have the potential to impact ambient air quality

Chemical-Specific ARARs, continued				
Law/Regulation	Citation	Description	ARAR Designation	Comments
Federal Laws				
State Laws				
Colorado Basic Standards and Methodologies for Surface Water	5 CCR 1002	Provides basic surface water quality standards and classifications.	Applicable	Requires compliance with the most stringent among the Water Supply, Water+Fish, Fish Ingestion, and Aquatic Life Based standards.
Classifications and Numeric Standards- South Platte River Basin, Laramie River Basin, Republican River Basin, Smoky Hill River Basin	5 CCR 1002-31, 1002-38,	Provides site-specific stream classifications and water quality standards	Applicable	Requires compliance with standards specific to Segment 5 of Big Dry Creek
Colorado Basic Standards for Groundwater	5 CCR 1002-8	Point of Compliance. Regulations are used to establish groundwater use classification.	Applicable	Under RFCA the only use classification is surface water protection. Point of Compliance will be applicable upon closure.

Enclosure 3
EPA COMMENTS ON THE SLOPE STABILITY EVALUATION - SEISMIC ISSUES
FOR THE PRESENT LANDFILL ACCELERATED ACTION DESIGN
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
GOLDEN, COLORADO

The proposed method for seismic evaluation, for use in the 100 percent design consists of performing a pseudo-static analysis, using one-half of the peak ground acceleration (PGA) as the pseudo-static coefficient, and evaluating the results against a factor of safety of 1.0.

For a factor of safety of 1.0 to be acceptable, the second bullet, page 11 should state that the PGA will be applied "at the top of the waste mass." This will provide a measure of assurance that no displacement of the cover and its components will occur.

Also, the first asterisk under the third bullet, page 11, states that the proposed PGA is "0.12%g." This is "0.0012g", which is incorrect. The corrected value should be "0.12g."